

## ABSTRACT

5 Diagnostic devices, systems and methods for detecting the presence of an analyte in a sample are provided. In one embodiment, the device comprises a substrate, a binder printed in a pattern onto a surface of the substrate, and a means for directing a sample towards the surface of the substrate that is printed with the binder. Systems of the present invention further include a light source that can be directed through the aforementioned means or another opening to the binder-printed surface to test for diffraction.